

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



MEMORANDUM

10/2/2018

SUBJECT: Product Chemistry Review for **Panther**, EPA Reg. No.: **5813-RRT**

FROM: Joseph Williams Jr., PhD
Chemistry and Toxicology Team
Product Science Branch
Antimicrobials Division (7510P)

A handwritten signature in black ink, appearing to read "J Williams Jr.", is placed next to the "FROM" field.

THRU: Karen P. Hicks, Team Leader
Chemistry and Toxicology Team
Product Science Branch
Antimicrobials Division (7510P)

A handwritten signature in black ink, appearing to read "K Hicks", is placed next to the "THRU" field.

TO: Demson Fuller, PM Team 32 /Benjamin Chambliss
Regulatory Management Branch I
Antimicrobials Division (7510P)

Registrant: The Clorox Company
Action code: A540
Agency Due Date:
10/11/2018
DP No.: 448236
Submission No.: 1021787
E-Sub No.: 30427
Classification: EP
Process: Nonintegrated system
Pesticide type:
Disinfectant, Sanitizer

MRID(s): 50573501, 50573502, 50545701

Formulation from label			
PC code(s)	CAS #(s)	Active Ingredient(s)	% weight
014703	7681-52-9	Sodium hypochlorite	3%
		Other Ingredients	97%
		Total	100%
Comments/Molecular Structure: The product yields 2.85% available chlorine.			

I. BACKGROUND

The Registrant, The Clorox Company, has submitted a pesticide registration for their product: Panther, EPA Reg. No. 5813-RRT. This non-integrated, end-use, non-food use product is formulated as a disinfectant / sanitizer.

II. RELEVANT DOCUMENTS

	RECEIVED	N/A
EPA FORM 8570-1 – Application for Pesticide (Registration) (6/28/2018)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EPA FORM 8570-34 – Certification with Respect to Citation of Data (6/28/2018)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EPA FORM 8570-27 – Formulator’s Exemption Statement	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EPA FORM 8570-35 – Data Matrix (6/28/2018)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cover letter (6/28/2018)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transmittal document	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proposed CSF BASIC, (6/26/2018) Proposed CSF ALTERNATE 1, (6/26/2018)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proposed label (6/19/2018)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
REFERENCED: CSF	--	
Comments: None.		

III. FINDINGS

a. Product Formulation:

	TGAI	MUP	EUP	Food use	Non-food use
Non-integrated	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Integrated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Active Ingredients(s)			Nominal	Upper limit	Lower limit
Sodium hypochlorite			3.0%	4.2%	2.8%
			YES	NO	N/A
1. The certified limits of all ingredients are within 40 CFR standard certified limits.			<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Wider certified limits were requested, and rationale was accepted.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. The nominal concentration(s) of the active ingredient is in agreement with the label.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. The chemical IDs and analytical information for density, pH, and flammability are consistent with Series 830 Group B data.			<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. All inert ingredients are approved for non-food use pesticide formulations.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The impurities present >0.1% are identified.			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Impurities of toxicological significance have an upper certified limit.			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

b. Product Label:

	Yes	NO	N/A
<i>The formula contains one of the following:</i>			
1. 10% or more of petroleum distillate	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. 1.0% or more of methyl alcohol	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sodium nitrite at any level	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. A toxic list 1 inert at any level	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Arsenic in any form	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. If yes to 1-5, then the inert ingredient list contains a relevant footnote	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Appropriate warning statements regarding flammability or explosive characteristics of the product are included on the label	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. The storage and disposal instructions for the pesticide container are in compliance with PR Notice 84-1 for household use products or PR Notice 83-3 for all other uses.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. The product requires an expiration date at which time the nominal concentration falls below the lower certified limit.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IV. Additional Findings

1. No instructions for container disposal were provided on the proposed product label. The proposed label was screened as it pertains to the product chemistry requirements. The final review of the product label is the purview of the PM team.

V. Conclusion

The Product Science Branch of Antimicrobials Division finds the proposed CSFs for the basic and Alternate formulation, dated 6/26/18 **acceptable**. The OPPTS 830 Series Guidelines for Group A and B chemistry data for Panther, EPA Reg. No. 5813-RRT are **acceptable**. The one-year storage stability and one-year corrosion characteristics studies are underway.

VI. Table A:
Series 830 guidelines – Group A

OCSPP#	Name	Status	MRID
830.1550	Product Identity & Composition	Acceptable	50573501
830.1600	Description of materials	Acceptable	50573501
830.1620	Description of production process	Not applicable, non-integrated	N/A
830.1650	Description of formulation process	Acceptable	50573501
830.1670	Discussion of formation of impurities	Acceptable	50573501
830.1700	Preliminary analysis	Not applicable, non-integrated	N/A
830.1750	Certified limits	Acceptable	MRID 50573501, Basic CSF and alternate CSF (both dated 06/26/2018)
830.1800	Enforcement analytical method	Acceptable	50545701
830.1900	Submittal of samples	Acceptable	50573502

VII. Table B: Series 830 guidelines – Group B

OCSP#	Name	Study Findings/Comment	Status	MRID
830.6302	Color	Yellow	Acceptable	50573501
830.6303	Physical state	Clear liquid	Acceptable	50573501
830.6304	Odor	Mild characteristic bleach odor	Acceptable	50573501
830.6313	Stability to normal & elevated temperatures, metals & metal ions	The product is not TGA	Not applicable	N/A
830.6314	Oxidation/Reduction	The product is compatible with water, iron powder, 10% potassium permanganate solution and kerosene, but not compatible with 10% monoammonium phosphate solution.	Acceptable	50573501
830.6315	Flammability	The product does not contain combustible components.	Not applicable	N/A
830.6316	Explosibility	The product does not contain explosive ingredients.	Waiver requested	50573502
830.6317	Storage stability	The one-year storage stability study is in progress.	In progress	50573502
830.6319	Miscibility	The product is not an emulsifiable liquid that will be diluted with petroleum solvents.	Waiver requested	50573502
830.6320	Corrosion characteristics	The one-year corrosion characteristics study is in progress.	In progress	50573502

OCSP#	Name	Study Findings/Comment	Status	MRID
830.6321	Dielectric breakdown voltage	The product is not intended for used near electrical equipment.	Waiver requested	50573502
830.7000	pH	12.92 at 25°C	Acceptable	50573501
830.7050	UV/Visible absorption	Not required for MUP or EP	Not applicable	N/A
830.7100	Viscosity	16.3 cP (30 rpm, 20°C), 20.0 cP (20 rpm, 20°C), and 28.2 (10 rpm, 20°C); 6.27 cP (60 rpm, 40°C), 6.51 cP (50 rpm, 40°C), and 7.22 cP (30 rpm, 40°C)	Acceptable	50573501
830.7200	Melting point	Not required for MUP or EP	Not applicable	N/A
830.7220	Boiling point	Not required for MUP or EP	Not applicable	N/A
830.7300	Density/relative	1.0379 g/mL (8.6617 lbs./gal) at 21.3°C	Acceptable	50573501
830.7370	Dissociation constants in water	Not required for MUP or EP	Not applicable	N/A
830.7520	Particle size	Not required for MUP or EP	Not applicable	N/A
830.7550/ 7560/ 7570	Partition coefficient	Not required for MUP or EP	Not applicable	N/A
830.7840/ 7860	Water solubility	Not required for MUP or EP	Not applicable	N/A
830.7950	Vapor pressure	Not required for MUP or EP	Not applicable	N/A